

Appendix 3 b

Off-Site Safety and Environmental Protection Plan (OSSEPP)

LBNL – Earths Science Division
Off-Site Safety and Environmental Protection

1. PROJECT IDENTIFICATION

Project Title:

Account:

Principal Investigator:

Site:

Site Owner or Managing Agency:

Is LBNL the primary site manager?

If not, who is?

Collaborating Organizations:

Summary Description of Site and Work:

Reference Scope of Work and Date:

2. HAZARDS AND CONTROLS

SITE-SPECIFIC HAZARDS (Identify)

Climate:

Physical:

Chemical:

Biological:

WORK-SPECIFIC HAZARDS (Identify hazards or indicate N/A if not applicable)

Off-road travel:

Mechanical:

Electrical:

Chemical:

Trenching & excavation:

Confined space:

Rigging:

High pressure:

Hazardous environmental
conditions:

Laser:

Radiation:

Hazardous materials:

Fire:

Use of boat:

Use of aircraft:

Other:

EMERGENCY RESOURCES LOCATION AND CONTACTS

Nearest telephone:

Nearest first aid station or ambulance service:

Nearest hospital or clinic:

Nearest garage or towing service:

Nearest law enforcement:

Suggested emergency evacuation route and meeting area:

Nearest potable water:

ON-SITE COMMUNICATIONS

Cellular telephone number(s):

Radio channel(s):

3. REQUIRED SAFETY TRAINING AND PERSONAL PROTECTIVE EQUIPMENT

All site personnel **must** have training in:

First Aid	_____
CPR	_____
Fire Extinguisher	_____

Additional General Safety Training:

Required Safety Training for special task or special zone personnel:

If safety training is required by host organization attach document (e.g. memo from host).

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE required for all persons on-site:

PPE required for personnel working on special tasks or in special zones:

4. OTHER MEASURES TO REDUCE IDENTIFIED RISKS

Site-Specific Hazards

Work-Specific Hazards

Hazardous Waste Site Attachment

If the site is known or suspected to contain hazardous waste and LBNL-ESD is the primary site manager, attach completed site-specific safety plan, as required by 29 CFR 1910.120.

5. SITE PERSONNEL (LBNL AND OTHER)

Site Manager:

Site Safety Officer (SSO):

Other Personnel:

Name, Organization, Title or Job Description, Status

Attach additional sheets as needed and safety training records of all LBNL and UC personnel.

Primary Emergency Contact at LBNL: Ext.

Alternate Emergency Contact at LBNL: Ext.

6. ENVIRONMENTAL PROTECTION

POTENTIAL THREATS TO THE ENVIRONMENT

Fluid injection or withdrawal:

Tracer release:

Biotic sample collection:

Threatened or endangered species present:

Protected wetland:

Surface water:

Archeological resources:

Other:

7. SITE AND WORK CLEARANCES AND PERMITS

	Required?	Prepared by	Date
Owner Permission	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Utilities Screening	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Dig or Drill Permit	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Blasting Permit	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
USEPA	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Water Quality Board	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Air Quality Board	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
US Fish & Wildlife	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Cal Fish & Game	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
Other _____		_____	_____
Other _____		_____	_____
Other _____		_____	_____

Attach or reference copies of permits, MOUs, etc.

8. POTENTIAL ENVIRONMENTAL DAMAGE & MITIGATION MEASURES:

9. OPERATIONS SCHEDULE:

The information provided in this plan is, to the best of my knowledge, accurate and complete as of the date of signing. Significant changes in situation, personnel, equipment, materials and work plans shall be appended as soon as they are known.

Date _____

Date

and have been made aware by the Principal Investigator (PI), Site-Safety Officer (SSO) or my immediate supervisor of the safety and environmental hazards contained within. I understand that if I have any questions or concerns I may seek resolution from the PI, SSO or my immediate supervisor, or other coworker, to my satisfaction.

Date _____

[illegible]

12. ATTACHMENTS

ITEMIZE ALL ATTACHMENTS HERE:

BIOLOGICAL:

Ticks- Exposure to ticks which may harbor the bacteria responsible for Lyme disease can be found in the western states, particularly Northern California, northeast states, and north-central states. Precautionary measures to prevent exposure include:

- * Wear light-colored clothing so that ticks can be spotted more easily.
- * Tuck pant legs into socks or boots and shirt into pants.
- * Spray insect repellent containing DEET on clothes and on exposed skin other than the face.
- * Wear a hat and a long-sleeved shirt for added protection.
- * Walk in the center of trails to avoid overhanging grass and brush.
- * Inspect the backs of co-workers during the day.

After being outdoors, remove clothing and wash and dry it at a high temperature; inspect body carefully and remove attached ticks with tweezers, grasping the tick as close to the skin surface as possible and pulling straight back with a slow steady force; avoid crushing the tick's body.

Early Lyme Disease: The early stage of Lyme disease is usually marked by one or more of the following symptoms and signs:

- * fatigue
- * chills and fever
- * headache
- * muscle and joint pain
- * swollen lymph nodes
- * a characteristic skin rash, called erythema migrans.

Erythema migrans is a red circular patch that appears usually 3 days to 1 month after the bite of an infected tick at the site of the bite. The patch then expands, often to a large size. Sometimes many patches appear, varying in shape, depending on their location. The center of the rash may clear as it enlarges, resulting in a bulls-eye appearance. Not all rashes that occur at the site of a tick bite are due to Lyme disease, however. For example, an allergic reaction to tick saliva often occurs at the site of a tick bite. Allergic reactions to tick saliva usually occur within hours to a few days after the tick bite, usually do not expand, and disappear within a few days. Any signs or symptoms of Lyme Disease occurring after a tick bite should be evaluated by a physician.

Snakes- Two families of venomous snakes are native to the United States. The vast majority are pit vipers, of the family Crotalidae, which include rattlesnakes, copperheads and cottonmouths (water moccasins). About 99 percent of the venomous bites in this country are from pit vipers. Some snakes carry a neurotoxic venom that can affect the brain or spinal cord. Copperheads, on the other hand, have a milder and less dangerous venom that sometimes may not require antivenin treatment. The other family of domestic poisonous snakes is Elapidae, which includes two species of coral snakes found chiefly in the Southern states. Though coral snakebites are rare in the United States--only about 25 a year by some estimates--the snake's neurotoxic venom can be dangerous. A 1987 study in the Journal of the American Medical Association examined 39 victims of coral snakebites. There were no deaths, but several victims experienced respiratory paralysis, one of the hazards of neurotoxic venom. Some bites, such as those inflicted when snakes are accidentally stepped on or encountered in wilderness settings, are nearly impossible to prevent. But the following precautions can lower the risk of being bitten:

- * Leave snakes alone.
- * Stay out of tall grass unless you wear thick leather boots, and remain on paths as much as possible.
- * Keep hands and feet out of areas you can't see.
- * Be cautious and alert when climbing rocks.

According to the American Red Cross, these steps should be taken if bitten by a poisonous snake:

- * Wash the bite with soap and water.
 - * Immobilize the bitten area and keep it lower than the heart.
 - * Get medical help.
 - * If a victim is unable to reach medical care within 30 minutes, a bandage, wrapped two to four inches above the bite, may help slow venom. The bandage should not cut off blood flow from a vein or artery. A good rule of thumb is to make the band loose enough that a finger can slip under it.
 - * A suction device may be placed over the bite to help draw venom out of the wound without making cuts.
- Suction instruments often are included in commercial snakebite kits.

HEAT:

Exposure to high temperatures without adequate fluid intake or breaks can result in heat exhaustion or heat stroke.

Heat exhaustion - is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

Heat stroke - is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105°F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur.

Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling.

Further treatment at a medical facility should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death.

COLD:

Common harmful effects of cold include frostbite and general hypothermia.

Frostbite - occurs when skin tissue actually freezes and cell damage results. Fingers, toes, cheeks, nose, and ears are primarily affected. The symptoms of frostbite include uncomfortable sensations of coldness; there may be a tingling, stinging, or aching feeling followed by numbness. Initially the frostbitten area appears white and is cold to the touch. This is followed by heat, redness, and swelling. Occasionally a victim may not be aware of the frostbite.

Tissue damage can be mild and reversible or severe, resulting in scarring and tissue death. Amputation or loss of function can be an unfortunate result. First aid includes treating affected areas with warm water at 102° to 110°F. Be careful to avoid rubbing frostbitten areas because this can lead to greater tissue injury. If there is a chance for refreezing, do not rewarm the affected areas.

General hypothermia - is the progressive loss of body heat with prolonged exposure to cold. Body heat loss is accelerated more rapidly when a person is wet because of sweat or working in a damp environment. Most cases of hypothermia develop in air temperatures between 30° & 50°F, but significant hypothermia can occur with air temperatures as high as 65°F (particularly when clothing is wet), or in the water at 72 degrees F.

The first symptoms of hypothermia are uncontrollable shivering and feeling of cold. As the body's temperature continues to drop, an individual can become confused, careless, and disoriented. At this point a person may make little or no effort to avoid further exposure to the cold. For those working around machinery or animals, accidental injury is an additional risk. When the core body temperature falls below 86°F, the body's adaptive mechanisms for reducing heat loss become ineffective and death can occur.

Individuals experiencing mild hypothermia should be immediately moved to a warm, dry shelter. Further heat loss is minimized by removing wet clothing and applying warm blankets for insulation. Warm, nonalcoholic, caffeine-free drinks may be offered. More severe cases of hypothermia require intensive medical care.